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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

APPLICANTS : ZIMMERMAN ET AL.
SERIAL NO. : 10/099,783
FILED : 15 March 2002
FOR : ADHESIVE SHEET STRIP
ART UNIT : 1771
EXAMINER : Daniel Zirker

25 August 2004

Mail Stop: Appeal Brief
Hon. Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPELLANTS' BRIEF ON APPEAL PURSUANT TO 37 CFR § 1.192

SIR:

This is an appeal from the final rejection dated 1 March 2004.

(1) REAL PARTY IN INTEREST

The real party in interest is **tesa Aktiengesellschaft** by virtue of an assignment recorded on at Reel 012963, Frame 0259 (Recorded on 3 June 2002).

(2) RELATED APPEALS AND INTERFERENCES

There are no related appeals and interferences.

(3) STATUS OF CLAIMS

Claims 1-11 stand finally rejected.

(4) STATUS OF AMENDMENTS

It is believed that all amendments have been entered (The response to the Examiner's final rejection dated 26 March 2004 did not include any amendments to the claims)

(5) SUMMARY OF INVENTION

The present invention relates to an adhesive sheet strip for a redetachable bond, removable from a joint by pulling in the direction of the bond plane, having a nonadhering grip tab and a subsequent single-sided or double-sided adhering strip, which comprises:

- a) a backing composed of a film having a tensile strength of 2-20 N/cm and an elongation at break of 200-800%, and
 - b) applied to at least one side thereof, a polyurethane based adhesive comprising:
 - 60 - 80% by weight of an aliphatic isocyanate/polyol crosslinking system,
 - 15 - 35% by weight of a filler, and
 - 0.05 - 0.20% by weight of an activator, based on the total weight of the adhesive
- as represented by claim 1. Claims 1-11 are supported at a minimum by the claims as originally filed which is substantially the same as the claims under appeal.

(6) ISSUES

The only remaining issue is whether claims 1-11 are obvious over over applicants' admissions in the specification in view of Ganster et al. (U.S. Patent 6,191,216).

(7) GROUPING OF CLAIMS

Since claims 2-11 are ultimately dependent upon claim 1, should the rejection of claim 1 be reversed the rejections of claims 2-11 should also be reversed. However, given the limited teaching and direction represented by the appellants' "admission", it is believed that each of the limitations represented by dependent claims 2-11 should be considered on their own merits.

(8) **ARGUMENT**

The primary reference for the rejection is the appellants' "admission" represented by the last two paragraphs on page 1 of the specification which is reproduced below:

"Elastically or plastically highly extensible self-adhesive tapes which by stretching substantially in the bond plane (referred to as stripping) may be redetached without residue or destruction even from in some cases highly sensitive bond substrates, such as papers or coated woodchip wallpaper, for example, are described in U.S. Pat. No. 4,024,312, DE 33 31 016, WO 92/11332, WO 92/11333, DE 42 22 849, WO 95/006691, DE 195 31 696, DE 196 26 870, DE 196 49 727, DE 196 49 728, DE 196 49 729 and DE 197 08 366. They are frequently employed in the form of adhesive tape strips having a preferably nonadhesive grip tab region from which the detachment process is initiated. Particular applications and embodiments of self adhesive tapes of this kind can be found, inter alia, in DE 42 33 872, WO 94/21157, DE 44 28 587, DE 44 31 914, WO 97/07172, DE 196 49 636 and WO 98/03601.

No convincing success has to date been achieved, however, by the use of polyurethane (PU) adhesives for such products. The reason for this is that, as described for example in DE 196 18 825 A1, adhesives exude through the poster paper, for example, when used in this way and are therefore unsuitable for consumer applications. ***Even the improved hydrophilic polyurethane gel composition of WO 97/43328 is unsuited to such applications.*** When bonded to paper and stored at 40.degree. C. or 70.degree. C., admittedly, there is only superficial exudation onto the paper, but after Solila irradiation (lamp: OSRAM, ULTRA VITALUX 300W/200-230V, E27) the adhesive undergoes a slight yellowish discoloration and then exudes through the paper." (emphasis added)

The appellants object to the Examiner's characterization of these paragraphs on the grounds that:

- (a) the paragraphs do not constitute an "admission";
- (b) even if found to be an "admission", the scope of the admission does not significantly encompass the appellants' invention as claimed; and
- (c) even if found to be an "admission", the Examiner has not considered this "reference" as a whole.

(a) Passages do not constitute an “admission”

“When an applicant states that something is prior art, it is taken as being available prior art against the claims. Admitted prior art can be used in obviousness rejections.” *In re Nomiya*, 509 F.2d 566, 184 USPQ 607 (CCPA 1975). However, the appellants’ “admissions” attributed by the examiner has never been made by the appellants. Any “admission” made was from the “Background” section of the specification which merely described a general sense of the art and is in no way descriptive of the elements which constitutes the appellants’ invention. In addition, there is no factual basis for the examiner’s interpretation of the paragraphs in question which constitute the applicants’ “admission” over that interpretation which has been given by the applicants.

(b) Scope of admission does not encompass the limitations of the appellants claims

It is well known that in order to establish a *prima facie* case of obviousness, all claim limitations must be taught. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974), MPEP 2143.03. However, as the “admission” is at best a fairly generic teaching, there is no specific direction which would lead one of ordinary skill in the art towards the properties specified in claim 1 for the backing and polyurethane based adhesive nor is there any direction for the limitations represented by claims 2-10 or for the method of providing an adhesive bond represented by claim 11 (which uses the adhesive strips of claims 1-10)

It is also well known that determinations of obviousness is a question of law based on fact. *In re Kotzab*, 217 F.3d 1365, 55 USPQ2d 1313 (Fed. Cir. 2000). However, the Examiner’s attempts to account for the deficiencies of the “admission” are not based in fact but personal opinion, e.g. page 4, lines 3-14 of the Examiner’s final rejection (mailed 1 March 2004) is reproduced below:

“With respect to applicants’ remarks that Ganster et al. fails to teach polyurethane adhesive claimed by applicants, the Examiner can only note that the **strongly believed** extremely broad ‘aliphatic isocyanate/polyol cross-linking composition’ is clearly either specifically disclosed or put **within the skill of the art** by the disclosure of Ganster et al. Note. e.g. column 2, lines 5 and 12-13, as well as column 3 lines 45 and 47 with respect to the presence of a suitable filler. Finally, activators are **clearly believed** to be, if not expressly disclosed, **well within the ordinary skill of the art** as applicants’ remarks and their response would clearly tend to support.”

Similarly, on page 5, lines 3-15 of the office action mailed 2 July 2003 stated:

"With respect to applicants' dependent claims, although neither secondary references discusses the presence of the genus of backings set forth in claim 3, such polymers as polyethylene, polypropylene or polyurethane **are believed well known**, as are the genus fillers set forth in claim 6, which are also discussed in Ganster et al. What other parameters that are not either expressly or inherently disclosed, such as the range of thicknesses in claims 2, 8-10 and the utilization of the cross-linking techniques set forth in claim 4 are each **believed to be**, if not expressly or **inherently** disclosed, obvious modifications to one of ordinary skill, in the absence of unexpected results."

Only the teaching of filler is clearly identified by the Examiner, the remainder is pure speculation by the Examiner, e.g. "...well within the ordinary skill of the art at the time the claimed invention was made' because the references relied upon teach that all aspects of the claimed invention were known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (BPAI 1993), MPEP 2143.01. The Examiner has the initial burden to establish a *prima facie* case of obviousness and such a holding must be made after establishing that a preponderance of evidence tends toward obviousness. However, the record does not establish a factual basis for teaching the limitations of appellants claim 1 or the limitations for claims 2-11.

Moreover, whatever assertion of inherency which are being made by the Examiner requires that "...the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999)(citations omitted). However, no extrinsic evidence has been proffered which supports the examiner's claims of inherency.

(c) Examiner has not considered the "reference" as a whole

Even if the above passages are considered to be an admission, the Examiner is still bound by the tenets of patent law to consider this "reference" as a whole. The second paragraph clearly would lead on of ordinary skill in the art away from the use of polyurethane adhesives including the type described in the Examiner's secondary reference (Ganster - WO 97/43328 = U.S. 6,191,216).

"[A] reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." *In re Gurley*, 27 F.3d 551, 553, 31 USPQ2d 1130, 1131 (Fed. Cir. 1994). By any objective standard, one of ordinary skill in the art reading the highlighted passages above ("No convincing success has to date been achieved, however, by the use of polyurethane (PU) adhesives for such products... Even the improved hydrophilic polyurethane gel composition of WO 97/43328 is unsuited to such applications") would not only be directed away from using polyurethanes as an adhesive but also the polyurethane disclosed by Ganster.

While it is believed that these reasons alone would render the appellants' claims unobvious over the "admission" in view of Ganster, there are at least three additional reasons why the pending claims are unobvious:

- (1) There is no motivation to combine applicants' admission with the teaching of Ganster;
- (2) Ganster does not teach the polyurethane needed to be combined with appellants' admission; and
- (3) Evidence of secondary considerations were not considered

- (1) No usable motivation from within the applicants' admission with teachings of Ganster

While there must be motivation to combine the references in order to establish a *prima facie* case of obviousness, the use of an applicants' "admission" provides special burdens for maintaining this motivation to combine references as MPEP 2143 states that "The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)"

Whatever motivation there may be to combine the teaching of the appellants' admission with Ganster cannot come from the applicants' disclosure which also happens to be the primary reference for the rejection. Ganster is of no assistance in providing motivation for combining with the elements of the applicants' admission as there is no direction or guidance for making such a combination and there is no factual basis for countering the appellants' assertion that Ganster's polyurethanes are unsuitable.

(2) Ganster does not teach the polyurethane needed to be combined with applicants' "admission"

Even if as a whole considerations of the claimed invention and prior art was not required to make a determination of obviousness and one could simply combine the elements as needed without any direction or motivation to do so, the combination of the applicants' admission and Ganster still would not approach the applicants' claimed invention because Ganster does not describe the applicants' polyurethane adhesive. Even when giving Ganster the best possible scope for their invention in order to support the examiner's rejection, Ganster teaches a polyurethane adhesive which is far different than that claimed by the applicants (see chart below):

Applicants' polyurethane-based adhesive (claim 1)	Ganster (U.S. Patent 6,191,216 - col. 2, lines 5-21)
60-80% by weight of an aliphatic isocyanate/polyol crosslinking system	hexamethylene diisocyanate or a modified hexamethylene diisocyanate polyetherpolyols with 2 to 6 hydroxyl groups and having OH values of 20 to 112 and an ethylene oxide (EO) content of ≥ 10 wt. %
15-35% by weight of a filler	
0.05 - 0.20% by weight of an activator	
	anti-oxidants
	bismuth(III) carboxylates soluble in the above polyols and based on carboxylic acids having 2 to 18 C atoms as catalysts
	wherein the product of the functionalities of the polyurethane-forming components (hexamethylene diisocyanate and polyetherpolyols) is at least 5.2, the quantity of the catalyst amounts to 0.005 to 0.25 wt. %, relative to the polyols, the quantity of anti-oxidants is within the range of ≥ 0.1 wt. %, relative to the polyols and a ratio of free NCO groups in the hexamethylene diisocyanate to the free OH of the polyols is from 0.30 to 0.70.

Not only must it be presumed that the additional elements of Ganster are inherent parts of the applicants' invention (as there is no evidence that any of their elements could be removed and still function as intended), one of ordinary skill in the art must also presume that fillers and activators are part of Ganster's invention and further still that the proper amounts are also taught by Ganster et al. This strains credulity and there is no factual support for making such a presumption.

With regard to the inclusion of additional elements to Ganster's invention, even if Ganster et al. were to mention these elements in passing in the specification, this still would not render the resulting polyurethane adhesive to be obvious as one could not ignore the multitude of other potential ingredients taught by Ganster et al. "One cannot use hindsight reconstruction to pick and choose among isolated

disclosures in the prior art to deprecate the claimed invention.” *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988), see also *In re Rice*, 178 USPQ 478, 480 (CCPA 1973) (“...the board said, referring to the appellant’s ingredients, ‘It should be noted that an infinite number of combinations is possible.’ Accepting that as an approximation to the truth, we fail to see the obviousness in devising appellant’s.....[invention] as claimed.”)

Even after climbing the hurdles presented by *Fine* and *Rice*, there still would be no motivation for the specific amounts of elements claimed by the applicants. MPEP 2144.05 section II (Optimization of Ranges) states that “A particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977).” Ganster makes no such assertions with regard to the missing elements and the phalanx of limitations which intrinsically tie each of Ganster’s elements together into an indivisible whole would appear to make it very difficult (if not impossible) to argue that one could optimize any variable in of the Ganster invention.

(3) Evidence of secondary consideration was not considered

The last of the *Graham* factors for determining obviousness is the at evidence of secondary considerations will be evaluated. The applicants hold that the evidence presented on pages 5 and 6 show evidence of “unexpected results”.

The last paragraph on page 1 of the applicants’ specification described the problems in the prior art with regard to the use of polyurethane adhesives with adhesive tape strips. DE 196 18 825 was provided as evidence that the use of some polyurethane adhesives was unsuitable for consumer applications. Disclosure of WO 97/43328 (Ganster et al.) was provided as further evidence as to its unsuitability. While the former represents a clear teaching away, perhaps the examiner could argue that Ganster does not represent a clear teaching away but merely a non-preferred embodiment as the unsuitability of the product was made clear only after Solila irradiation.

However, the polyurethane adhesives used in the applicants claimed invention when subjected to the same Solila irradiation surprisingly did not exhibit the discoloration and exudation seen by the Ganster adhesive (see page 6, lines 10-16). This would appear to be the objective evidence that the examiner had asked for in his office action.

(9) CONCLUSION

For the foregoing reasons, Appellants respectfully request that the Honorable Board reverse the final rejections.

CONDITIONAL PETITION FOR EXTENSION OF TIME

If any extension of time for this response is required, Appellants request that this be considered a petition therefor. Please charge the required petition fee to Deposit Account No. 14-1263.

ADDITIONAL FEE

Please charge any insufficiency of fees, or credit any excess to our Deposit Account No. 14-1263.

Respectfully submitted,

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Date: **25 August 2004**

By

Agata Glinska
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(10) APPENDIX - CLAIMS ON APPEAL

1. An adhesive sheet strip for a redetachable bond, removable from a joint by pulling in the direction of the bond plane, having a nonadhering grip tab and a subsequent single-sided or double-sided adhering strip, which comprises:
 - a) a backing composed of a film having a tensile strength of 2-20 N/cm and an elongation at break of 200-800%, and
 - b) applied to at least one side thereof, a polyurethane based adhesive comprising:
60 - 80% by weight of an aliphatic isocyanate/polyol crosslinking system,
15 - 35% by weight of a filler, and
0.05 - 0.20% by weight of an activator, based on the total weight of the adhesive.
2. The adhesive sheet strip as claimed in claim 1, wherein the film is 40 - 80 μ m thick.
3. The adhesive sheet strip of claim 2 wherein the film is made of a compound selected from the group consisting of polyethylene, polypropylene and polyurethane.
4. The adhesive sheet strip as claimed in claim 1, wherein the adhesive is crosslinked thermally and, optionally, additionally by electron-beam curing, and optionally is additionally crosslinked at the cut edges, which are formed after the adhesive sheet strip has been cut, by UV or by further electron-beam curing.
5. The adhesive sheet strip as claimed in claim 1, wherein the aliphatic isocyanate/polyol crosslinking system comprises of: (1) an optionally modified hexamethylene diisocyanate as the aliphatic isocyanate component and (2) a polyetherpolyol and castor oil, which is optionally stabilized with tocopherols, as the polyol component.
6. The adhesive sheet strip as claimed in claim 1, wherein the filler is selected from the group consisting of an absorbent, zinc oxide, calcium carbonate, magnesium carbonate and mixtures thereof.
7. The adhesive sheet strip as claimed in claim 1, wherein the adhesive has been applied to both sides of the backing.

8. The adhesive sheet strip as claimed in claim 1, wherein the adhesive is 10-80 μm thick.
9. The adhesive sheet strip as claimed in claim 1, wherein the entire thickness of the adhesive sheet strip is 50 - 5000 μm .
10. The adhesive sheet strip as claimed in claim 1, wherein the entire thickness of the adhesive sheet strip is 100 - 2000 μm .
11. A method of providing an adhesive bond to a surface which comprises applying the adhesive sheet strip of any one of claims 1-10 to said surface wherein parting of the adhesive bond, by pulling on said sheet strip in the direction of the bond plane, renders said surface damage-free and residueless.